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WATER QUALITY
CONTROL BOARD
REGION 1

APR 6 '94

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<input type="checkbox"/> FR	<input type="checkbox"/> KD
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Site Inspection Prioritization

Site: Mt. Jackson Mercury Mine
18475 Sweetwater Springs Rd.
Guerneville, CA 95446

Site EPA ID Number: CAD 980736086

Work Assignment Number: 60-32-9JZZ, ARCSWEST Program

Submitted to: Michael Bellot
Site Assessment Manager
EPA Region IX

Thru: Sandra Carroll

Date: March 10, 1994

Prepared by: Maynard Geisler *MG*

Review and Concurrence: Michele Dermer *MD*



Bechtel Environmental, Inc.

1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA), Region IX, under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), has tasked Bechtel Environmental, Inc. (BEI) to conduct a site inspection prioritization (SIP) of the Mt. Jackson Mercury Mine site in Guerneville, Sonoma County, Calif., using the EPA's Hazard Ranking System (HRS) criteria. The HRS has been adopted by the EPA as the primary method of determining a site's eligibility for placement on the National Priorities List (NPL). The NPL identifies sites at which the EPA may conduct remedial response actions. This report summarizes the results of the SIP of the Mt. Jackson Mercury Mine site. The location of the site is shown in Figure 1-1.

The Mt. Jackson Mercury Mine site was identified as a potential hazardous waste site and entered into the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) on April 1, 1980 (CAD 980736086) (1).

2.0 APPARENT PROBLEM

The apparent problems at the site are as follows:

- In 1980, the Caputo Wagner Company, a construction firm, began quarrying onsite mercury mine tailings. In May 1980, complaints by local residents about excessive truck traffic and concern for potential mercury-containing dust prompted the California Environmental Protection Agency, Regional Water Quality Control Board, North Coast Region, and the California Department of Health Services to investigate the Mt. Jackson Mercury Mine site. (2)
- Chemical analyses of groundwater underlying the site and onsite soil, mine tailings, and surface water indicated concentrations of mercury in each of these media. Additionally, in May 1980, a lamb from a property near the site died suddenly. Analysis of the dead lamb's tissue indicated concentrations of mercury; however, the lamb's death was not attributed to mercury. (2)

3.0 PERTINENT HAZARD RANKING SYSTEM FACTORS

The pertinent Hazard Ranking System factors associated with the site are:

- The nearest municipal water supply wells, which are operated by the Armstrong Valley Water District, are located approximately 2.75 miles from the site. The Armstrong Valley Water District provides groundwater to approximately 1,000 people. In April 1993, analyses of groundwater from these wells indicated no detectable concentrations of mercury. (3)
- There are no surface water intakes associated with the Russian River downstream of the site. (4)
- The nearest commercial fishing area is located approximately 12 miles downstream of the site. (5)

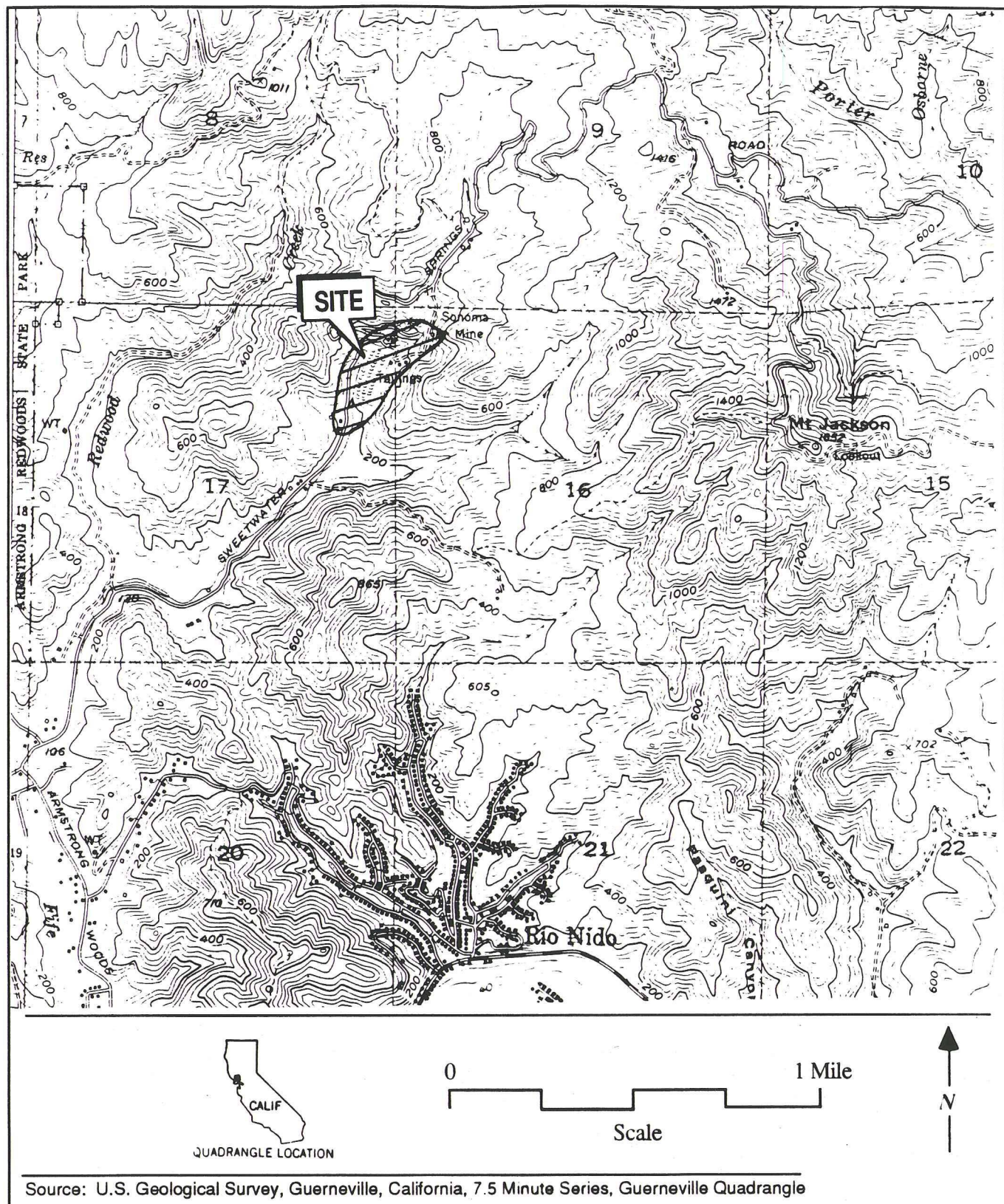


Figure 1-1 Site Location

REMEDIAL SITE ASSESSMENT DECISION - EPA REGION IX

Site Name: Mt. Jackson Mercury Mine EPA ID#: CAD 980736086

Alias Site Names: _____

City: Guerneville County or Parish: Sonoma State: CA

Refer to Report Dated: 3/10/94 Report type: Site Inspection Prioritization

Report developed by: Bechtel Environmental, Inc.

DECISION:

1. Further Remedial Site Assessment under CERCLA (Superfund) is not required because:

1a. Site does not qualify for further remedial site assessment under CERCLA (Site Evaluation Accomplished - SEA)

1b. Site may qualify for further action, but is deferred to:

RCRA
NRC

2. Further Assessment Needed Under CERCLA:

2a. (optional) Priority: Higher Lower

2b. Activity Type:

PA
SI

ESI
HRS evaluation

Other: _____

DISCUSSION/RATIONALE: This site is located in a sparsely populated area, for this reason, there are few targets of exposure. M.E.B.

Report Reviewed, Approved, and Site Decision Made by:

Michael E. Bell

Signature:

Michael E. Bell

Date:

3/23/94

APPENDIX A

REFERENCE LIST

Site: Mt. Jackson Mercury Mine

1. U.S. Environmental Protection Agency, Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), March 1, 1994.
2. California Department of Health Services, Memorandum to the Mt. Jackson Mercury Mine file, from P.H. Williams, November 14, 1988.
3. Guodotti, Gay, Armstrong Valley Water District, Telephone conversation recorded on Contact Report by Maynard Geisler, Bechtel Environmental, Inc., February 7, 1994.
4. Flugum, Jim, Telephone conversation recorded on Contact Report by Maynard Geisler, Bechtel Environmental, Inc., February 24, 1994.
5. Lee, Jewelynn, California Department of Fish And Game, Telephone Conversation Recorded on Contact Report by Maynard Geisler, Bechtel Environmental, Inc., February 2, 1994.

APPENDIX B

CONTACT LOG

Site: Mt. Jackson Mercury Mine

EPA ID: Cad 980736086

Name	Affiliation	Phone	Date	Information
James Dunton	Sweetwater Springs Water District	(707) 865-0733	2/1/94	See Contact Report.
Janet Naito	California Environmental Protection Agency, Department of Toxic Substances Control	(510) 540-3833	2/2/94	See Contact Report.
Bill Cox	California Department of Fish and Game	(707) 823-1001	2/2/94	See Contact Report.
Jewelynn Lee	California Department of Fish and Game	(707) 544-7452	2/2/94	See Contact Report.
Lauren Griffin	Sonoma County Water Agency	(707) 523-1070	2/2/94	See Contact Report.
Bob Klamp	California Environmental Protection Agency, Regional Water Quality Control Board, North Coast Region	(707) 576-2220	2/3/94	See Contact Report.
Bob Fortune	Site Owner Representative	(707) 869-9283	2/4/94	See Contact Report.
Gay Guodotti	Armstrong Valley Water District	(707) 869-0050	2/7/94	See Contact Report.
Judy Kerchenko	Hacienda Water Company	(707) 869-3633	2/7/94	See Contact Report.
Jim Flugum	Sonoma County Water Agency	(707) 526-5370	2/24/94	See Contact Report.

APPENDIX C

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CONTACT REPORT

AGENCY/AFFILIATION: Sweetwater Springs Water District		CODE:
DEPARTMENT:		
ADDRESS: P.O. Box 900		CITY: Monte Rio
COUNTY: Sonoma	STATE: CA	ZIP: 95446
CONTACT(S) James Dunton	TITLE	PHONE (707) 865-0733
BEI PERSON MAKING CONTACT: Maynard Geisler <i>MG JS</i>		DATE: 2/1/94
SUBJECT: Sweetwater Springs Water District Water Supply System		
SITE NAME: Mt. Jackson Mercury Mine		EPA ID: CAD 980736086

DISCUSSION:

The Sweetwater Springs Water District supplies groundwater as a drinking water source to three service areas. Service areas include Guerneville, Monte Rio, and the Russian River Meadows. Only the Guerneville service area is within 4 miles of the site. The Guerneville service area uses two active and one standby well. These wells are between 85 feet and 100 feet deep and are located in the community of El Bonita. The standby well was used within the last four weeks. The Guerneville service area system is blended and provides drinking water to approximately 6,000 people. Groundwater from these wells is sampled annually. These wells have never been closed due to contamination. Mercury, lead, or copper have never been detected in groundwater collected from these wells. The Guerneville service area wells have a substandard surface seal and the wells will be replaced.

CONTACT CONCURRENCE:



DATE:

2-7-94

CONTACT REPORT

AGENCY/AFFILIATION: California Environmental Protection Agency		CODE:
DEPARTMENT: Department of Toxic Substances Control		
ADDRESS: 700 Heinz Ave., Bldg F, 2nd Floor		CITY: Berkeley
COUNTY: Alameda	STATE: CA	ZIP: 94710
CONTACT(S) Janet Naito	TITLE	PHONE (510) 540-2122
BEI PERSON MAKING CONTACT: Maynard Geisler <i>MG</i>		DATE: 2/2/94
SUBJECT: Site Actions		
SITE NAME: Mt. Jackson Mercury Mine		EPA ID: CAD 980736086

DISCUSSION:

The California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) has not investigated the site since 1982. Currently the case file for this site is inactive.

CONTACT CONCURRENCE: _____ **DATE:** _____

CONTACT REPORT

AGENCY/AFFILIATION: California Department of Fish and Game		CODE:
DEPARTMENT: Ocean Salmon Project		
ADDRESS: 777 Sonoma Ave. , Suite 115D		CITY: Santa Rosa
COUNTY: Sonoma	STATE: CA	ZIP: 95404
CONTACT(S) Jewelynn Lee	TITLE Assistant Biologist	PHONE (707) 544-7452
BEI PERSON MAKING CONTACT: Maynard Geisler <i>MG</i> <i>JS</i>		DATE: 2/2/94
SUBJECT: Salmon Catch Data		
SITE NAME: Mt. Jackson Mercury Mine		EPA ID: CAD 980736086

DISCUSSION:

The Pacific Ocean, at the mouth of the Russian River, is a popular area for commercial and sport fishing . There are no fish catch data specific to that area. The California Department of Fish and Game fish catch data are based on where commercial and recreational fishing vessels dock (land). The San Francisco landing area is the closest landing area to the mouth of the Russian River. Salmon catch data reported by commercial fishing vessels from the San Francisco landing area in 1992 are as follows:

- Approximately 55,200 Chinook salmon, averaging 10.6 lbs per fish; and
- Approximately 300 Coho salmon, averaging 4.6 lbs per fish.

Salmon catch data reported by recreational fishing vessels from the San Francisco landing area in 1992 are as follows:

- Approximately 46,700 Chinook salmon, averaging 10.6 lbs per fish; and
- Approximately 1,006 Coho salmon, averaging 4.6 lbs per fish.

It is not known what portion of the salmon caught in 1992 were from the vicinity of the mouth of the Russian River.

CONTACT CONCURRENCE: _____ DATE: _____

CONTACT REPORT

AGENCY/AFFILIATION: California Department of Fish and Game		CODE:
DEPARTMENT:		
ADDRESS: P.O. Box 47		CITY: Yountville
COUNTY: Napa	STATE: CA	ZIP: 94599
CONTACT(S) Bill Cox	TITLE Biologist	PHONE (707) 823-1001
BEI PERSON MAKING CONTACT: Maynard Geisler <i>MG</i>		DATE: 2/2/94
SUBJECT: Surface Water Use		
SITE NAME: Mt. Jackson Mercury Mine		EPA ID: CAD 980736086

DISCUSSION:

Steelhead trout may spawn in Fife Creek and Wilson Creek. However, fishing is not permitted in these creeks. Annually, approximately 200 steelhead trout are caught in the Russian River by sport fisherman. There are no fish hatcheries within 15 miles downstream of the site. The Pacific Ocean at the mouth of the Russian River is a popular fishing area for commercial and sport fisherman. The California freshwater shrimp is listed as a federally and state-endangered species and is known to occur in Austin Creek, located approximately 5 miles east of the site. Fife Creek and Wilson Creek are potential habitats for the California freshwater shrimp. ~~There are no surface water intakes used for drinking water in the Russian River downstream of Guerneville.~~

CONTACT CONCURRENCE:

Bill Cox

DATE:

2/14/94

I have no knowledge of surface water intakes. For this information you should contact the North Coast Regional Water Quality Control Board in Santa Rosa.

200 steelhead caught annually in the Russian is probably a minimum. A survey in 1971-72 showed about 3600 steelhead caught. It is not that many now and varies considerably from year to year.

Bill Cox

CONTACT REPORT

AGENCY/AFFILIATION: Site Representative		CODE:
DEPARTMENT:		
ADDRESS: 18025 Sweetwater Rd.		CITY: Guerneville
COUNTY: Sonoma	STATE: CA	ZIP: 95446
CONTACT(S) Bob Fortune	TITLE	PHONE (707) 869-9283
BEI PERSON MAKING CONTACT: Maynard Geisler <i>MG</i> <i>JS</i>		DATE: 2/4/94
SUBJECT: Site Operations		
SITE NAME: Mt. Jackson Mercury Mine		EPA ID: CAD 980736086

DISCUSSION:

Bob Fortune is the father of the site owner, Amy Ciddio. The site is inactive and there are no commercial operations on site. There are three residential buildings on site with a total of four occupants. Prior to the purchase of the site by Amy Ciddio, the mine tailings were used by the Piombo Construction Company for fill material at various construction sites. Currently, there are three mine tailings piles on site. These piles are approximately 20 feet x 10 feet x 70 feet, 20 feet by 15 feet x 70 feet, and 10 feet x 10 feet x 60 feet.

CONTACT CONCURRENCE: _____ **DATE:** _____

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CONTACT REPORT

AGENCY/AFFILIATION: California Environmental Protection Agency		CODE:
DEPARTMENT: Regional Water Quality Control Board, North Coast Region		
ADDRESS: 1440 Guerneville Rd.		CITY: Santa Rosa
COUNTY: Sonoma	STATE: CA	ZIP: 95403
CONTACT(S) Bob Klamp	TITLE	PHONE (707) 576-2220
BEI PERSON MAKING CONTACT: Maynard Geisler <i>MG JS</i>		DATE: 2/3/94
SUBJECT: Site Actions		
SITE NAME: Mt. Jackson Mercury Mine		EPA ID: CAD 980736086

DISCUSSION:

The California Environmental Protection Agency, Regional Water Quality Control Board, North Coast Region (RWQCB) has not investigated the site since the early 1980s. RWQCB data collected during the early 1980s indicated that mercury detected in site soil and surface water samples could not conclusively be attributed to historic or current site activities. The case file for this site is inactive at this time.

CONTACT CONCURRENCE: *[Signature]*

DATE: 2-7-94

CONTACT REPORT

AGENCY/AFFILIATION: Sonoma County Water Agency		CODE:
DEPARTMENT:		
ADDRESS: 2150 West College Ave.	CITY: Santa Rosa	
COUNTY: Sonoma	STATE: CA	ZIP: 95401
CONTACT(S) Laurn Griffith	TITLE	PHONE (707) 526-5370
BEI PERSON MAKING CONTACT: Maynard Geisler <i>MG</i>		DATE: 2/2/94
SUBJECT: Russian River Flow Rates		
SITE NAME: Mt. Jackson Mercury Mine		EPA ID: CAD 980736086

DISCUSSION:

Russian River flow rates are recorded from a station near the Hacienda bridge. During the late summer the flow rate is approximately 150 cubic feet per second. During the winter, the flow averages 500 cubic feet per second. Peak flow rates can be up to 200,000 cubic feet per second during the winter.

CONTACT CONCURRENCE: _____ **DATE:** _____

CONTACT REPORT

AGENCY/AFFILIATION: Hacienda Water Company		CODE:
DEPARTMENT:		
ADDRESS: P.O. Box 1388		CITY: Forestville
COUNTY: Sonoma	STATE: CA	ZIP: 95436
CONTACT(S) Judy Kerchenko	TITLE	PHONE (707) 869-3633
BEI PERSON MAKING CONTACT: Maynard Geisler <i>M/G</i>		DATE: 2/7/94
SUBJECT: Water Supply System		
SITE NAME: Mt. Jackson Mercury Mine		EPA ID: CAD 980736086

DISCUSSION:

The Hacienda Water Company operates one water supply well. The well is located in the community of Hacienda. The well depth is unknown. Groundwater from the well is sampled and analyzed on a regular basis as required by the State of California. There are 170 service connections associated with the Hacienda Water Company system.

CONTACT CONCURRENCE: _____ **DATE:** _____

CONTACT REPORT

AGENCY/AFFILIATION: Sonoma County Water Agency		CODE:
DEPARTMENT:		
ADDRESS: P.O. Box 11628		CITY: Santa Rosa
COUNTY: Sonoma	STATE: CA	ZIP: 95406
CONTACT(S) Jim Flugum	TITLE Senior Civil Engineer	PHONE (707) 576-2145 526-5370
BEI PERSON MAKING CONTACT: Maynard Geisler <i>MG</i> <i>JS</i>		DATE: 2/24/94
SUBJECT: Russian River Surface Water Intakes		
SITE NAME: Mt. Jackson Mercury Mine		EPA ID: CAD 980736086

DISCUSSION:

There are no municipal water supply company surface water intakes associated with the Russian River downstream of Guerneville. *(To my knowledge)*

CONTACT CONCURRENCE: *J Flugum* DATE: *3/1/94*

ARMSTRONG VALLEY WATER CO. ANNUAL WATER QUALITY REPORT

This is our annual report as now required by law. As the table below demonstrates, the water we deliver to you meets all primary water quality standards established by the California Department of Health Services.

PARAMETER	UNITS	MAXIMUM CONTAMINANT LEVEL	GROUND WATER
CLARITY			
Turbidity	NTU	5.0	<.5 to 2.4
MICROBIOLOGICAL			
Coliform Bacteria	% Tests Positive	0%	0%
ORGANIC CHEMICALS			
Total Trihalomethanes	mg/l	0.10	N.D.
Benzene	mg/l	0.001	N.D.
Carbon Tetrachloride	mg/l	0.0005	N.D.
1,4-Dichlorobenzene	mg/l	0.005	N.D.
1,2-Dichloroethane	mg/l	0.0005	N.D.
1,1-Dichloroethylene	mg/l	0.006	N.D.
1,3-Dichloropropene	mg/l	0.0005	N.D.
Ethylbenzene	mg/l	0.680	N.D.
Monochlorobenzene	mg/l	0.030	N.D.
1,1,2,2-Tetrachloroethane	mg/l	0.001	N.D.
Tetrachloroethylene	mg/l	0.005	N.D.
1,1,1-Trichloroethane	mg/l	0.200	N.D.
1,1,2-Trichloroethane	mg/l	0.032	N.D.
Trichloroethylene	mg/l	0.005	N.D.
Vinyl Chloride	mg/l	0.0005	N.D.
Xylenes	mg/l	1.750	N.D.
INORGANIC CHEMICALS			
Aluminum	mg/l	1.	<0.1
Arsenic	mg/l	0.05	<.01
Barium	mg/l	1.	<.10
Cadmium	mg/l	0.010	<.001
Chromium	mg/l	0.05	<.01
Fluoride	mg/l	1.4 - 2.4*	0.13
Lead	mg/l	0.05	<.005
Mercury	mg/l	0.002	<.001
Nitrate (as NO ₃)	mg/l	45.	2.5
Selenium	mg/l	0.01	<.005
Silver	mg/l	0.05	<.010
RADIOACTIVITY			
Gross Alpha Activity/Uranium	pCi/l	15	<1.00
<i>Secondary Standards - Aesthetic Standards Established by the State of California, Department of Health Services</i>			
Color	Units	15	5
Odor-Threshold	Units	3	<1
Chloride	mg/l	500	7.3
Copper	mg/l	1.0	<.05
Foaming Agents (MBAS)	mg/l	0.5	<.05
Iron	mg/l	0.3	.18
Manganese	mg/l	0.05	<.03
Sulfate	mg/l	500	30
Zinc	mg/l	5.0	<.05
Total Dissolved Solids	mg/l	1000	150
<i>Additional Constituents Analyzed</i>			
pH	Units	No Standard	6.6
Hardness (CaCO ₃)	(mg/l)	No Standard	120.
Sodium	(mg/l)	No Standard	8.5
Calcium	(mg/l)	No Standard	24.
Magnesium	(mg/l)	No Standard	14.

LEGEND: mg/l = milligrams per liter (parts per million)

pCi/l = pico Curies per liter

N.D. = None detected

< = Less than

*Proposed Maximum Contaminant Level—has not yet been adopted.

*Fluoride Standard depends on temperature.

In addition to the above constituents, we have conducted monitoring for 43 additional organic chemicals for which the California Department of Health Services and USEPA have set a standard and none were detected. For additional water quality data contact Gay Guidotti at 707-869-0050. Office hours 9 a.m. to 2 p.m. Monday through Friday.

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CONTACT REPORT

AGENCY/AFFILIATION: Armstrong Valley Water District		CODE:
DEPARTMENT:		
ADDRESS: P.O. Box 256		CITY: Guerneville
COUNTY: Sonoma	STATE: CA	ZIP: 95446
CONTACT(S) Gay Guodotti	TITLE	PHONE (707) 869-0050
BEI PERSON MAKING CONTACT: Maynard Geisler <i>MG</i> <i>JS</i>		DATE: 2/7/94
SUBJECT: Groundwater Supply		
SITE NAME: Mt. Jackson Mercury Mine		EPA ID: CAD 980736086

DISCUSSION:

The Armstrong Valley Water District operates two drinking water wells. The wells are each approximately 120 feet deep and located along Armstrong Woods Road approximately 1.25 miles north of River Road. The system is blended and has 263 active connections. Groundwater from the wells was sampled in April 1993. No mercury was detected.

CONTACT CONCURRENCE:

[Signature]

DATE:

2/10/94